

CLAIMS

What is claimed is:

1. A system for mapping payload data to spreadsheet lists, the system comprising:
5 a spreadsheet storage unit adapted to store spreadsheet data including at least one spreadsheet list;
a payload data storage unit adapted to store payload data; and
a mapping unit adapted to receive spreadsheet data from said spreadsheet storage unit, receive payload data from said payload data storage unit, and map said payload data to said
10 at least one spreadsheet list.
2. The system of claim 1, wherein said at least one spreadsheet list includes extensible markup language (XML) lists.
- 15 3. The system of claim 1, wherein the system further comprises:
a user interface adapted to receive said at least one mapped spreadsheet list from said mapping unit and display said at least one mapped spreadsheet list to a user.
4. The system of claim 1, wherein the system further comprises:
20 a network interface adapted to receive said at least one mapped spreadsheet list from said mapping unit and provide said at least one mapped spreadsheet list to a network.
5. The system of claim 1, wherein said at least one spreadsheet list includes at least one field path associated with said payload data, and wherein said mapping unit is further adapted to
25 determine at least one parent path from said at least one field path.
6. The system of claim 5, wherein said mapping unit is further adapted to designate at least one branch bottom path from said at least one parent path, wherein said at least one branch bottom path includes a longest path of said at least one parent path.

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7. The system of claim 6, wherein said mapping unit is further adapted to designate at least one result node from said at least one branch bottom path by applying said at least one branch bottom path to said payload data.
- 5 8. The system of claim 7, wherein said mapping unit is further adapted to map said at least one result node to a row in a spreadsheet list.
9. The system of claim 8, wherein said row includes a plurality of fields, and wherein said mapping unit is further adapted to obtain values for said plurality of fields by using said at least
10 one branch bottom path and said at least one result node with said payload data.
10. A method for mapping payload data to spreadsheet lists, the method comprising the steps of:
- receiving spreadsheet data including at least one spreadsheet list, wherein said at
15 least one spreadsheet list includes at least one path associated with a field;
- receiving payload data, wherein said payload data is associated with said spreadsheet data; and
- mapping said payload data to said at least one spreadsheet list by using said at
least one path.
- 20 11. The method of claim 10, wherein mapping said payload data to said at least one spreadsheet list by using said at least one path further comprises the steps of:
- generating a set of parent paths for said at least one path;
- designating at least one parent path of said set of parent paths as at least one
25 branch bottom path; and
- generating a set of nodes from payload data, wherein said set of nodes is generated by evaluating said at least one branch bottom path on said payload data.
12. The method of claim 11, wherein mapping said payload data to said at least one
30 spreadsheet list by using said at least one path further comprises the steps of:

mapping a node of said set of nodes to a row of said at least one spreadsheet list;
and

retrieving a value of said field within said row by tracing said at least one branch
bottom path to said at least one path associated with said field within said spreadsheet data.

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13. The method of claim 11, wherein generating a set of parent paths for said at least one
path comprises the steps of:

enumerating said at least one path of said spreadsheet data;

following enumerated said at least one path back to a previous field; and

10 inserting a path associated with said previous field into said set of parent paths.

14. The method of claim 11, wherein designating at least one parent path of said set of parent
paths as at least one branch bottom path comprises the steps of:

determining at least one longest parent path of said set of parent paths; and

15 designating said at least one longest parent path as at least one branch bottom
path, if a first parent path of said at least one longest parent path is not a subset of a second
parent path of said at least one longest parent path.

15. The method of claim 11, the method further comprising the steps of:

20 associating a third parent path of said set of parent paths with said at least one
branch bottom path, wherein said third parent path is a subset of said at least one branch bottom
path.

25 16. A computer-readable medium comprising computer-executable instructions for mapping
payload data to spreadsheet lists, the computer-executable instructions performing the steps of:

receiving spreadsheet data including at least one spreadsheet list, wherein said at
least one spreadsheet list includes at least one path associated with a field;

receiving payload data, wherein said payload data is associated with said
spreadsheet data; and

30 mapping said payload data to said at least one spreadsheet list by using said at
least one path.

17. The computer-readable medium of claim 16, wherein mapping said payload data to said at least one spreadsheet list by using said at least one path further comprises the steps of:

generating a set of parent paths for said at least one path;

5 designating at least one parent path of said set of parent paths as at least one branch bottom path; and

generating a set of nodes from payload data, wherein said set of nodes is generated by evaluating said at least one branch bottom path on said payload data.

10 18. The computer-readable medium of claim 17, wherein mapping said payload data to said at least one spreadsheet list by using said at least one path further comprises the steps of:

mapping a node of said set of nodes to a row of said at least one spreadsheet list;

and

15 retrieving a value of said field within said row by tracing said at least one branch bottom path to said at least one path associated with said field within said spreadsheet data.

19. The computer-readable medium of claim 17, wherein generating a set of parent paths for said at least one path comprises the steps of:

enumerating said at least one path of said spreadsheet data;

20 following enumerated said at least one path back to a previous field; and

inserting a path associated with said previous field into said set of parent paths.

20. The computer-readable medium of claim 17, wherein designating at least one parent path of said set of parent paths as at least one branch bottom path comprises the steps of:

25 determining at least one longest parent path of said set of parent paths; and

designating said at least one longest parent path as at least one branch bottom path, if a first parent path of said at least one longest parent path is not a subset of a second parent path of said at least one longest parent path.

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21. The computer-readable medium of claim 17, the computer-executable instructions further performing the steps of:

associating a third parent path of said set of parent paths with said at least one branch bottom path, wherein said third parent path is a subset of said at least one branch bottom

5 path.